



NEWSLETTER: June 2024

The Conservation of the Hooded Plover and other beach nesting birds on the Mornington Peninsula—a Citizen Science Project **Mark Lethlean**

Mark is a retired vet, whose main love is bird photography. The Birdlife MP newsletter has many of his beautiful photographs.

Waders make up 10% of Australia's birds, and are migratory. Some water birds feed on beaches, such as ducks and swans. Only a few birds are beach nesting. There are only 5 in Australia, and 4 of these breed on the Mornington Peninsula- Hooded Plover, Red-capped Plover, Sooty and Pied Oystercatchers. (The Beach Stone-Curlew is only in the northern states).

The Hooded Plover is iconic and ambassadorial- its conservation helps protect the whole ocean beach environment. Its status is 'vulnerable'. The West Australian population lives on inland lakes as well as ocean beaches, but the Eastern population are only on ocean beaches. Victoria has a counted population of 761, NSW only 65, SA 838, and Tasmania an estimated 1200.

At this time of year, their non-breeding season, they gather in flocks, but in the breeding season, August to March, they are in pairs at their usual site. They lay 2-3 eggs in a scrape on the sand, and both birds share the incubation. If they are disturbed, they run away from the nest. The eggs take 28 days to hatch, and then 35 days from hatching to fledging, their most vulnerable time. The parents guard the chicks but they feed themselves. To protect the chicks a parent will put on a distraction display and pretend to have a broken wing.

Breeding success- on the Mornington Peninsula the average fledged chick per pair rate is 25%. To stay viable they need a success rate of 45% ie 1 chick for every second breeding pair.

Threats: disturbance- exposing chicks and eggs

Predation – ravens, gulls, magpies, dogs, foxes and cats

Inadvertent crushing by feet, horses or vehicles (a big factor in NSW and SA)

Tides and storm events, which account for nearly half of nesting failures

Dogs have been banned on MP National Park beaches since 2016.

Birds of prey- Nankeen Kestrels, Swamp Harriers, White-bellied Sea Eagle

Volunteers put records into a data portal of birds seen, flags on legs, behaviour and threats.

A focus of the Friends of Hooded Plovers is community education- creating signs, permanent and temporary; writing books and brochures; and talking to the public at beaches and stalls. They also organise temporary fencing and chick shelters.

To find out more:

Website: <https://hoodedplover.com/mornington-peninsula>

Email is hploversmornpen@gmail.com

Photo: Mark Lethlean



Wildlife Highlights from a Mallee Refuge– Wandown FFR

Roger spoke about a small but species-rich mallee reserve that he has been visiting for decades.

Wandown FFR is just 5k by 4k, and is east of Annuello and south of Robinvale. It was a sheep property, but was long ago abandoned. It has the highest concentration of mallee fowl mounds for its size- 90, many of which are in regular use, and are monitored by the Mallee fowl Recovery Group.

We saw photos of many birds that Roger has photographed there- Chestnut Quail-thrush, Choughs, Rainbow bee-eaters in a bank, Variegated Fairywren and Regent, Mallee ringneck and Mulga parrots. *Grevillea huegelii*, the Comb *Grevillea*, is a spectacular red flowered shrub.

There were plenty of reptile photos too- Desert, pale rumped and brown striped skinks, Bearded dragon, sand goanna and stumpy tailed lizards.

Roger has a particular interest in invertebrates, and had a first record for Victoria of 2 species- an antlion - *Protoplectron longitudinali*, and also the Red Mallee creaker cicada. On the other hand was the sighting of a red headed centipede, which was first named by Aristotle. Another observation was of wasps at a waterhole - the males patrol the waterhole, keeping other wasps away, so that when the females come in for water they can mate with them.

Roger Standen, April 10 2024



Photos: R Standen

From top left: Mallee fowl, Chestnut Quail-thrush, Sand monitor, *Grevillea huegelii*



Birding at Patterson River, April 8, 2024

For this excursion we followed the levee bank on the south side of the Carrum Rowing Course, overlooking the Eastern Treatment Plant, from the freeway to the start of the course, a distance of 2-3 kilometres. Most of the birds were observed in the ETP, but first sightings were in the river below the bridge, with Pelican, Great Egret, Darter, White-faced Heron, Chestnut Teal and Pacific Black Duck. The air beneath the bridge was alive with Welcome Swallows and House Sparrows; from there on the course had few birds, most of them Darters, until the end where the structures at the start line were home to numerous roosting ducks. More Welcome Swallows were seen, as well as the mud nests of Fairy Martins, although the martins themselves were absent. Pied, Little Pied, Little Black and Great Cormorants were all observed, along with Silver Gulls and a lone Crested Tern.

Most of the birds were seen in the ETP or on that side of the levee bank. Most numerous were Spiny-cheeked Honeyeaters and Spotted Doves. There was no water close to the levee bank, but some way across we could see Black-winged Stilts, Masked Lapwings, Black Swans, and Coots. Adjacent to the dividing fence a Brown Falcon sat in a dead tree surveying the scene; Swamp Harriers and Whistling Kites were cruising overhead, and an Australian Kestrel hovered over the grassy area beyond the rowing course.

Numerous small birds flitted back and forth between the ETP and the levee bank; these included Red-browed Finches, Goldfinches, Superb Fairy-wrens, Silvereyes, Willie Wagtails and Grey Fantails. The side of the levee bank towards the ETP is planted with native trees, mostly Eucalypts and Casuarinas, with very little understory. In some places the understory consists of Inkweed (*Phytolacca octandra*, Family Phytolaccaceae, a native of the Americas); there was quite a lot of this plant in the ETP grounds as well. It was noticeable that these small bush birds were concentrated in these places. Inkweed produces succulent berries in autumn, on which many native and introduced birds have been observed to feed, including Silvereyes and many pigeons, parrots and honeyeaters. The Red-browed Finches and Goldfinches, being seed-eaters, are unlikely to exploit this food source, but they do use it as shelter in the absence of native groundcover; but it could be a significant seasonal local food source to Silvereyes.

We finished the day with two reptile observations. Numerous small skinks were observed on the levee bank; they all appeared to be the same species, Garden Skink *Lampropholis guichenoti*. This is an egg-laying species, adults growing to 6-9 cm; these tiny skinks must have recently hatched. The other reptile was a, sadly dead, very small Lowland Copperhead *Austrelaps superbus*.

Text & Photos: Lee Denis

(Garden skink, Brown Falcon)



Daveys Bay Beach Walk

Our April outing was a geology ramble to Daveys Bay, Mt Eliza.

Heather our geology enthusiast outlined all the different layers of rock and how they were formed.

We also spent time examining Selwyn fault. It really makes a difference to have someone explain what you are looking at in geological terms. It was a perfect still Autumn day with lovely distant views of the Melbourne skyline and Mt Macedon.

Beautiful cloud formations were enjoyed by the group.

Text & photo: Bett Mitchell



Seaford Wetlands Birding May 6

It was a lovely sunny autumn day, but the birds were somewhere else.

Fortunately we had company- Carolyn, Leanne's sister, Kris from MP Birdlife, and Teghan, a local Seaford girl. We did the 8k lap, starting at Austin Rd. There were plenty of waterbirds near the platform, but not many woodland birds in the Old Wells Rd section. Along Eel Race Drain we saw a Large Egret, a Royal Spoonbill, Australasian Grebes and Little Pied Cormorant. We also stopped to look at the handsome new bridge. It is so safe that you can neither fall off it nor see the creek from it. It is somewhat like a tunnel with no roof. Along the return track we saw a few bush birds and a pair of Feral Domestic Geese. And sadly, no Flame Robins. Their numbers have diminished rapidly over the years, down to none at all for the last 3 years.

Text: J Smart

Photo: H Ducat



Warrandyte State Park, May 11

This Park follows the left bank of the upper Yarra River—only 20-odd kilometres from Melbourne as the crow flies, but more than 150 kilometres away if you were to follow the river. The river is cut through sandstones of Silurian-Devonian age (say 420 million years ago) which are strongly folded. Our walk took us on a path along the riverbank from the Jumping Creek picnic ground upriver to Blue Tongue Bend; the return journey along the maintenance track away from the river. The total return distance is about four kilometres.

The day was fine but overcast, but recent rain had made the track quite slippery. For most of the walk the track is several metres above the river level, and undulating, but there are a couple of points at which the track descends to the river. Rather than weedy species, these areas were covered with a couple of species of Knotweed (*Persicaria decipiens* and *P. praetermissa*) and Lesser Joyweed (*Alternanthera denticulata*). The Yarra was flowing strongly; debris in trees well above the water level indicate that the river can swell quite considerably. On our right the bank rose steeply, covered with a carpet of Weft Moss (*Thuidiopsis* sp) and a liverwort (*Chiloscyphus semiteres*) on the rocks and fallen logs. Amongst the moss we spotted a Tiny Trigger-plant (*Thysanotis perpusillum*) and a single Tall Greenhood, as well as patches of Maidenhair and Screw Ferns.

The main understory shrub was Burgan (*Kunzea leptospermoides*), also Sweet Bursaria, Prickly Currant-bush, and a couple of Pomaderris species—*P. aspera* and *P. racemosa*, under an upperstory of Red Box (*Eucalyptus polyanthemos*) and a few other eucalypts; Manna Gums (*E. viminalis*) lined the river. One shrub that caught our eye was River Lomatia (*Lomatia myricoides*), a fairly uncommon riparian species, according to Flora of Melbourne restricted to a few locations to the east of Melbourne. Some interesting fungi were observed, including a small coral fungus (possibly a species of *Ramaria*), Tall Mycena (*M. cystidiosa*), a jelly fungus (possibly a *Calocera* species) and large patches of Graceful Parasol *Macrolepiota cleelandii*.

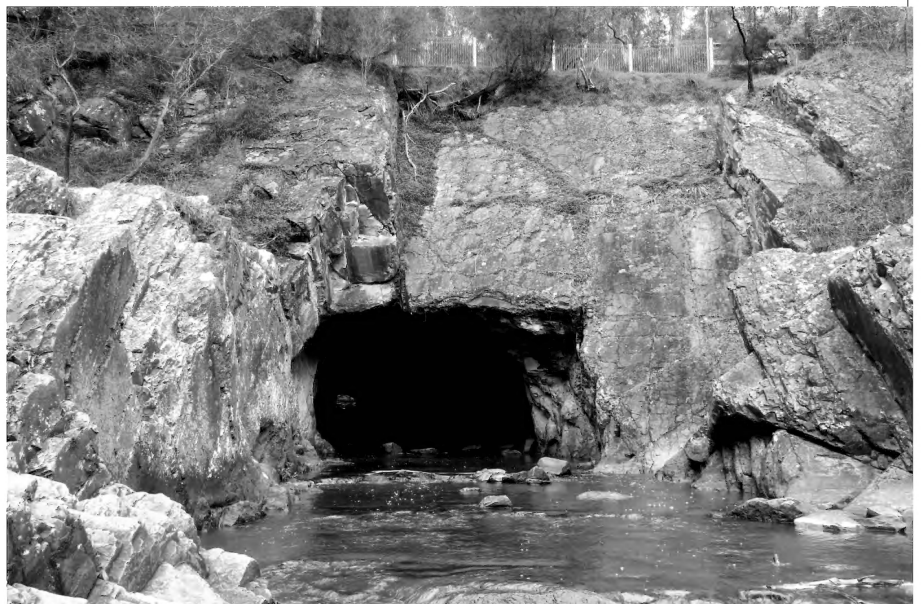
The track showed abundant signs of wombats, but naturally the wombats were sound asleep. A Swamp Wallaby watched us go by.

Apart from Sulphur-crested Cockatoos screeching in the trees across the river, birds were scarce—not a bird seen on the water. Galahs flashed noisily by; in contrast, some Yellow-tailed Black-cockatoos cruised by with their characteristic lazy wingbeats. A Common Bronzewing posed on a branch showing off its vibrant colouring to best advantage. The closest bird encounter came at lunchtime when Ann lost her sandwich to a Kookaburra which snatched it out of her hand, then hung around looking for more easy spoils. Great photo opportunities at least.

After lunch we drove to Pound Bend, where the river turns back on itself so sharply that a tunnel was cut under the isthmus, connecting the river above the meander that forms the Pound (once used as a cattle pound).

Those in our party with geological interests were particularly keen to include this feature in our excursion; the geology is well exposed there. The tunnel was cut in 1870 to divert the river and expose the bed in the meander to gold prospecting—not a successful venture, as the company folded a year later. We did see a few more birds here, including Wood Ducks on the water, and Rainbow Lorikeets in the trees.

Text & Photos: Lee Denis (Pound Bend Tunnel)



SEANA Autumn Camp—Phillip Island, April 19-21

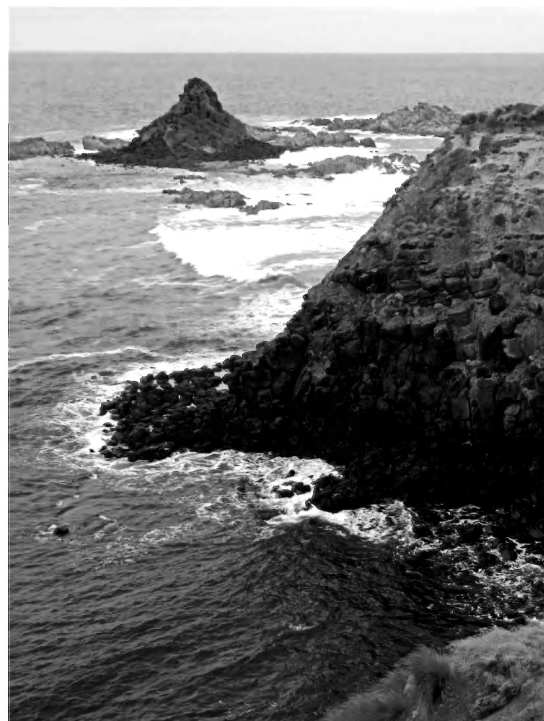
The 2024 SEANA Autumn Camp at Phillip Island was hosted by The Field Naturalists Club of Victoria. The 12 excursion locations to choose from featured remnant eucalypt woodland, birds, geology, fungi, mangroves & saltmarsh, plus a boat cruise to Seal Rocks & a visit to a Koala conservation reserve. Velimir and I often pick the same excursions (no consultation) and our focus for the 4 half-day adventures was geology along the south coast.

Phillip Island is an undulating plateau of Older Volcanics, dated at about 47 million years; the same formation as on the Mornington Peninsula between Cape Schanck, Flinders & Somers. The spectacular coast continues along the southern shore of Phillip Island with black basalt cliffs up to 50m. high and bays cut into the softer red volcanic tuff (ash). In stark contrast is Cape Woolamai, composed of Devonian granite dated at about 370 million years old, which forms the south-east point and was formerly an island, now connected by sand at Cleeland Bight. There are minor exposures of other rocks on the north and south coast.

We were fortunate that our leader for 2 of our excursions was Graham Patterson, author of 3 books about his coastal walks of Western Victoria, Port Phillip and Western Port, including Phillip and French Islands. Seeing the rugged southern coast and the mangroves and saltmarsh at Rhyll Inlet gives an appreciation of his amazing feats of endurance. We visited 3 sites on the southern coast and 1 on Cape Woolamai.

PYRAMID ROCK is a site of State Geological Significance where the boundary between the pink granite and the much younger overlying black basalt is visible. This is the furthest point west that the granite can be seen. At low tide the pointy basalt stack of Pyramid Rock stands on the pink granite shore platform. A clifftop track heading west, gives access to Redcliff Head, an outcrop of volcanic tuff that was mined for red pigment.

KITTY MILLER BAY -- Further along the southern coast, this bay has a sandy beach backed by low dunes and a shore platform of black basalt and red tuff, picked over by a few Sooty Oystercatchers. A stranded cobble beach behind the sand is evidence of the higher sea level about 6000 years ago. Guarding the bay are the headlands Watt Point and Kennon Head, both are volcanic plugs. At Kennon Head the stranded shore platform, now beyond the reach of the waves supports White Correa, Cushion bush and orange lichen. At the eastern end of the bay a grassy track ascends to the top of Watt Point which gives a grandstand view of a shipwreck - S.S. Speke - 1906, and the wide shore platform in the next bay. This is mostly black basalt and red tuff but 2 ridges of greenstone are of particular interest. It is one of only a few (3?) exposures of this Cambrian metamorphic volcanic basement rock in Victoria, dated at about 500 million years -- the oldest rock in the state!!



A rough and slippery track gives access to the shore platform but our leader, Ken Griffith advised us to make use of our binoculars and stay on the clifftop. Fortunately some pebbles of greenstone have been washed around Watt Point and it was possible to examine this ancient rock.

THE NOBBIES - We also visited Point Grant at the south-west tip of the island, with a distant view of Seal Rocks, home to thousands of Australian Fur Seals. The prominent Nobby is connected by a wide shore platform, the incoming tide making lacy white patterns on the black basalt. The undulating grassland of the nature reserve is a

favourite location of Cape Barren Geese, with numerous pairs feeding along the roadside. They seem to be at ease with cars, just walk anywhere ON the roads, the traffic stops or just crawls along until they move.

CAPE WOOLAMAI & THE PINNACLES - Again our focus was geology, at this location it's the pink granite that forms the highest point of Phillip Island. From the surf beach we climbed to the Woolamai Faunal Reserve which is home to up to 1 million Muttonbirds (Short-tailed Shearwaters) that nest in burrows between November & April.

The Pinnacles form the western point of Cape Woolamai where the granite has numerous vertical and horizontal joints that have been weathered by pounding waves to form cracks between blocks, columns and pinnacles.

Evening speakers kept us entertained and informed, detailing activities of some of the community groups.

FRIDAY - Ed Thexton and Gerry Drew from 'Save Western Port Woodlands' -- This community group is fighting to protect the forest corridor from the expansion of sand mining. The area stretches from Lang Lang to Grantville and includes areas we are familiar with :- Adams Creek and The Gurdies Nature Conservation Reserves. The Holden Proving Ground is located centrally and is the most intact block of remnant woodland and provides a wildlife corridor to a string of small reserves nearby. These areas are home to threatened species such as White-footed Dunnart, Southern Brown Bandicoot, Powerful Owl, Swift Parrot, Strzelecki Gum and Tea-Tree Fingers Fungus. The Holden Proving Ground is up for sale and it is hoped that part of it can be acquired by the Victorian Government.

SATURDAY - Leon Altoff is Convener of the Marine Research Group -- F.N.C.V. and supported by some amazing photos, he outlined the research of Phillip Is. species over a number of years.

SUNDAY - Graham Patterson is a member of F.N.C.V. and spoke about his adventures -- highs and lows -- of walking around the coast of Western Port. Great photos and entertaining stories. He has also spoken at our club a few times, I really enjoy the overall picture of an area, with natural history and human history and entertaining snippets that he presents in his books.

Thank-you to the F.N.C.V. for a really enjoyable weekend with a wide range of well-researched excursions. Also thank-you to Phillip Is. C.W.A. who provided a lavish buffet on Sunday night -- all the favourites such as dainty sandwiches, quiche, scones and the most delicious passionfruit cream sponge I've had in years.

Text & Photos: Heather Ducat



Photos: left page: Pyramid Rock

This page, clockwise: The Pinnacles
Kennon Head– White Correa, Cushion
Bush, Lichen
Cape Barren Goose



Phillip Island Marine Invertebrates

Although Heather and I had primarily planned geology excursions for this SEANA autumn (Heather is doing Geology report), I managed to allocate enough time for my second field of interest: marine invertebrates. Following Saturday's lecture by Leon Altoff from FNCV Marine Research Group about Marine Invertebrates of Philip Island's intertidal zone, I planned to capture as many observations as possible for iNaturalist and compile this report. Having already gathered some material from Woolamai Surf Beach on our journey to Pinnacles, where we visited prior to the lecture, I recognized the opportunity to collect data and capture images from both the Westport (Bay zone) and South Ocean (Bass Strait zone). Consequently, I explored the South Ocean coast along Woolamai Surf Beach, encompassing Pyramid Rock and Kitty Miller Bay, as well as Cowes Beach, Rhyll Inlet, and Rhyll Beach along Westernport. The majority (97%) of all animal species are invertebrates. The main marine invertebrate phyla and groups of the animal kingdom include **Annelida** (polychaete marine worms), **Arthropods** (crabs, shrimps, and barnacles), **Ascidians** (Sea Squirts), **Brachiopods** (Lamp shells), **Bryozoans**, **Cnidarians** (jellyfish, corals, and sea anemones), **Echinoderms** (starfish, sea urchins, and sea lilies), **Molluscs** (bivalves, gastropods, and cephalopods), and **Porifera** (sponges).

This brief overview shows that I recorded (spotted and photographed) almost all phyla and groups of marine invertebrates.

The following photos and brief descriptions showcase some unusual or attractive species, at least to me.

Lamp shell *Magelania flavescens* (Rhyll Beach)

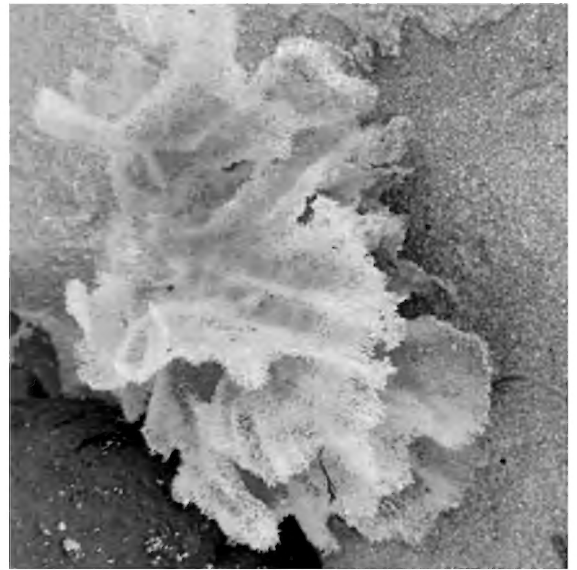
Brachiopods, small marine shellfish often referred to as lampshells due to their resemblance to traditional gas lamps, were once abundant during the Palaeozoic era but are less common today. Their valves have upper and lower surfaces, unlike the left and right in bivalves, and are hinged at the rear end, allowing them to open for feeding or close for protection while attached to the seabed.

With a history spanning at least 550 million years, brachiopods first appeared in the fossil record in the earliest Cambrian rocks and still survive today, albeit relatively rarely. Their numbers declined significantly due to major extinction events, particularly during the Late Devonian and Permian periods. Despite once boasting about 12,000 species, their population is drastically reduced today, making them an excellent example of living fossils.



Red-rust Bryozoan *Watersipora subtorquata* (Kitty Miller Bay)

The origin of this species of colonial bryozoans is unclear, but it is widespread in warm-water coastal regions globally and has become invasive in southern Australia and New Zealand.



Southern Pearly Brooch Shell *Neotrigonia margaritacea* (Cowes)

This saltwater clam is found on sandy beaches in shallow seas of southern Australia. It was the first living member of its family to be discovered; previously, trigoniids were known only from fossil records. Lamarck initially described *Neotrigonia margaritacea* (then known as *Trigonia margaritacea*) in 1804. It is now recognized as a "living fossil," being the first known living member of the Trigoniidae family. While well known from fossils, it was previously believed to have become extinct at the end of the Mesozoic era.

Golden Small Star *Bellastraea aurea* (Rhyll Beach)

The small, solid, imperforate shell has a depressed-conic shape, with a color pattern ranging from golden yellow to olive. This marine species is endemic to Australia and is found in the shallow subtidal zone off South Australia, Tasmania, Victoria, and Western Australia.

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Ribbed Mitre *Turriplicifer australis* (Kitty Miller Bay)

The shell is smooth, polished, and turreted, with dark brown bands and cinnamon-spotted white bands. This marine species is endemic to southeast Australia.



Birding—Elsternwick Park, June 3

When I saw Elsternwick Park on the program for June birding, I thought to myself -- Why are we going there, it's just a suburban park with lots of open sports grounds; as it turned out I was pleasantly surprised. Six club members rolled up on a cool, cloudy morning with a light wind. Only a few of us had any knowledge of the park, I collected tadpoles there when I was a kid, Lee had played golf there years before and Judy has been walking in the area fairly recently. Judy had posted our proposed visit on-line and a local resident, Helen was keen to show us around including the on-going changes to the area, which has an interesting history. It was formerly part of Elwood Swamp which was fed by Elster Creek that flowed from streams draining from McKinnon, Moorabbin and East Brighton. At dry times the creek was reduced to a series of wetlands in a small valley. At times of higher water levels the creek flowed through the swamp to reach The Bay, via a short gully on the northern side of Point Ormond. Elster Creek was named by Charles Hotson Ebdon, an early settler and Treasurer of Victoria. Elster means 'magpie' in his native German dialect and was inspired by the hundreds of magpies digging for worms in the Elwood Swamp.

The swamp was a reliable source of food for the local Yalukit-willam aboriginal clan, supplying ducks, eels, frogs, fish and freshwater shellfish. Early settlers in Henry Dendy's 'Special Survey' area named Brighton, collected reeds and sedges to use as roof thatch for their cottages.

Parts of the swamp were progressively drained for various activities, mostly for sporting clubs and public use
1860 s - Leased for grazing, 1868 - First public reserve for the Coast Cricket Club, 1880 to 1891 - Trotting track and race course with grandstands and landscaping, 1885 - Melbourne Gun Club, 1893 - Elsternwick Golf Club established an 18 hole course, which in 1925 was reduced to a 9 hole public course and the southern section of the park was used for hockey, soccer, football and rugby. The golf course was finally closed in 2018.

Some of the mature exotic species of trees - cypress, date palms and eucalypts may date from some of these 'improvements'. In 1904 major drain-

age works were completed with the construction of Elwood Canal, the 1.2 km. section that runs from St Kilda Street on the western boundary of the park, to The Bay.

The site of the 9 hole golf course in the north-east part of the park is progressively being returned to its original landscape of vegetation and wetlands, to be named Yalukit-willam Nature Reserve. More than 100 indigenous species have been planted and a chain of ponds and a large billabong are established, filling and receding through the seasons to support native plants and birds that adapt to water level changes. Further work includes a wildflower meadow, extended path network, additional wetlands including a birdhide and a conservation island. From historical notes there was mention that tussock grass bordering the swamp was a favourite haunt of lots of Lowland Copperhead Snakes; I doubt the council will reintroduce this species! This Nature Reserve might be worth another visit in a few years.

At the western side of the park and separate to the Nature Reserve are two permanent lagoons and on Monday the notable species seen here were a flock of up to 20 Little Black Cormorants and a Darter. Our total for the day was 29 species, including 15 waterbird species and 3 ferals.



Text & Photos: **Heather Ducat.**

Historical information from 'History of Brighton', by Weston Bate -- 1963.

Master Plan– next stages

Bayside Council have a 10 year Masterplan, which is well underway, with the Chain of Ponds completed, and the Wildflower Meadow in progress. The next stage is to complete the Wetlands- northern section. When finished wetlands will be 40% of the site, providing tranquillity for users, significant habitat for wildlife, and much improved water quality going into the Elwood Canal.

The last stage will be a Gateway Building near Nepean Highway, expected to be completed Spring 2026.



Photos: left page– Central Wetland, this page– Elwood Canal, Chain of Ponds



Melbourne Museum Visit, June 15

On a cold yet sunny day, we embarked on an excursion to the city and visited the Melbourne Museum and its surrounding gardens. It's useful to visit museums periodically to refresh our knowledge, recall forgotten facts, and discover something entirely new. We agreed to explore independently and spend unlimited time admiring our desired collections, reconvening for lunch at a set time before continuing where we left off.

From the colossal whale skeleton and impressive dinosaur skeletons to the collection of beetles and butterflies, the museum reignited the curiosity and fascination of childhood in each of us. Enthusiastic birdwatchers even compiled a brief bird list of species spotted in the gardens and forest galleries.

However, my greatest interest lay in the geological and paleontological collections, where I took numerous photographs of minerals, crystals, and fossils.

Here's a brief story about meteorites:

Cranbourne Meteorite 10, Langwarrin, Identified 1886, weighing 914 kg

The Cranbourne Meteorite is the second largest meteorite found in Australia, and at the time of its discovery, it was the largest known iron meteorite in the world. Around 1780, a meteorite weighing approximately 8.5 tons fragmented into 13 large pieces near Cranbourne. These fragments were named chronologically from Cranbourne 1 to Cranbourne 13 based on their discovery dates. The largest piece, Cranbourne 1, weighing around 3.5 tons, was identified in 1860 and is housed in the Natural History Museum in London. Other fragments ranging from 1.5 tons to several kilograms are dispersed across various museums in Australia and around the world, Cranbourne 3 was lost in shipping and Cranbourne 8 was cut into pieces and sold by a mineral dealer.



Legend has it those years before its discovery, members of the Bunurong Aboriginal tribe used to dance around the meteorite, enjoying the metallic sounds produced by striking it with their stone axes.

Henbury Iron medium octahedrite, from the Henbury Meteorite Craters in Northern Territory



Another meteorite that caught my attention is from the Henbury Meteorite Craters near Alice Springs. These craters likely formed from several impact events and are one of the best-preserved examples of a small crater field. The craters range from 7 to 180 meters in diameter and some are as deep as 15 meters. Several tons of iron-nickel fragments have been found at the site. The impact occurred around 4,500 years ago, and the craters were discovered in 1899, with scientific investigations starting in 1932. Several Aboriginal tribes consider the site a sacred place, and various legends surround it.

Cephalopod Belemnite from Cretaceous NSW

Text & Photos: Velimir Dragic



West Bengal India talk, June 12

This is my third trip to India- the first was 50 years ago. This time we travelled from one end of West Bengal to the other, starting in Kolkata, formerly Calcutta., in November 2023.

West Bengal and Bangladesh were one state, and share history and language, but were divided during Partition in 1947. That caused 4ml Hindu refugees to arrive in Kolkata, leading to its reputation for poverty and overcrowding. Today the population is 4.5ml, which makes it only the 7th biggest city in India. Kolkata was built by the East India Company from 1686, at the same time as the other colonial powers had outposts along the Hooghly River- the Danish, French, Portuguese and Dutch. It was the capital of the British Raj until replaced by Delhi in the 1930s and is still the intellectual and cultural capital.

In such a busy, crowded city there is a surprising amount of wildlife – from our hotel balcony we saw black kites eating squirrels, black-naped oriole and kingfishers among others. Five stops away on the underground Metro is Rabindra Sarovar, a large parkland with gardens and lakes, and 116 birds counted there. In the centre of the city is the Maidan, 400 acres of open space, defence structures, a racecourse, the Eden Gardens cricket ground, informal cricket matches, and goat herders.

We flew to Darjeeling, 650k north of Kolkata and in the foothills of the Himalayas. The land belonged to the Buddhist King of Sikkim, who leased it to the East India Co in 1835. It became a hill station and tea plantations, with Nepali labour from over the nearby border. Mt Kanchenjunga overlooks the town- it is the 3rd highest peak at 8586m, only 50m lower than Mt Everest. The successful 1953 expedition to Mt Everest started in Darjeeling, and Tensing Norgay helped found the Himalayan Mountaineering Institute there. We took a jeep trek over 3 days to Sandakphu, at 3636m, to get better views of Kanchenjunga. On the windy side of the ridge it was all low scrubby vegetation, but on the other side it was lush vegetation, with 24 species of Rhododendron, 3 of Maple, 3 of bamboo, and many familiar plants such as cotoneaster, azaleas and primulas.

At the southern end of Bengal is the Sunderbans- the world's largest river delta, where the Ganges, Brahmaputra and Hooghly among others reach the sea. It is a network of channels and mangroves, with 102 islands, and much of the area in reserves. It belongs 60% to Bangladesh and 40% to India. It is home to 300 Bengal tigers, which everyone hopes to see, but rarely do. We did see Chital deer, crocodiles, and a few birds such as egrets and cormorants.

Our last stop was Murshidabad, the home of the Nawab of Bengal, Bihar and Odisha. The city's glory period was from its founding in 1706 until Clive of India defeated the Nawab in 1757, after the Nawab attacked the British at Kolkata (the infamous Black Hole of Calcutta). The legacy is a beautiful collection of palaces,

mosques, tombs and gardens in lush countryside, with wildlife such as Northern Plain Grey Langur monkeys and lots of birds.

Text & photos:
Judy Smart



Vale– Hans Brunner

Hans Brunner, the respected local scientist, died recently at the age of 95.

His expertise was in the identification of Mammalian Hair, and he wrote the definitive book on this. His testimony proved that Azaria Chamberlain was taken by a dingo, and not murdered by her mother Lindy Chamberlain.

He was a passionate and frustrated advocate for the protection of the endangered Southern Brown Bandicoot. In spite of his advocacy they became extinct at The Pines, where a remnant population had been living. He worked at the Keith Turnbull Research Institute nearby.

In 2014 he was named Environmentalist of the Year by the Australian Wildlife Protection Council.

Judy Smart



Portrait of Hans Brunner by Lulu Clifton-Evans

Contact Us

Peninsula Field Naturalists Club Inc

CAV: A0010510T

Meetings are held on the second Wednesday of each month with a field trip on the following Saturday. Visitors always welcome.

We also go birding on the first Monday of the month.

Further information and current Program of Activities can be found at our website:

www.peninsulafieldnaturalists.org.au

We are also on Face book: **Peninsula Field Nats**

Email: penfieldnats@gmail.com

Secretary & temporary editor: Judy Smart

President: vacant

Treasurer: Linda Edwards

Annual subs due July

Adult \$35

Concession \$30

Family \$40

To pay direct to bank account: Bendigo Bank

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